

CLAIMS

1. A structure of a Management Information Base (MIB) communicated between a Network Management System (NMS) and an agent of a Network Element (NE), the structure comprising:
- 5 a baseInfo for creating an objectInfoTable for describing object-type objects, a trapInfoTable for describing trap-type objects, and a baseInfoTable for describing common properties of MIB objects; and
- a syntaxInfo for creating a syntaxIntegerTable and a sequenceInfoTable.
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2. The structure of Claim 1, wherein the baseInfoTable comprises: baseInfoEntry, which includes a baseInfoIndex distinguishing instances of tables; a moduleName; an objectName mapped to names of all the management objects in a MIB for agent; an objectType describing types of management objects in a MIB for agent mapped to a notification type; an objectID mapped to OIDs of management objects in a MIB for agent; and a description mapped to MIB management objects in a MIB.
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3. The structure of Claim 1, wherein the objectInfoTable comprises: objectInfoEntry, which includes an objectInfoIndex distinguishing instances of tables; an objectBaseSyntax describing syntax of a MIB for agent and having Integer (Integer, Octet, String, Object Identifier) which is a initial type of ASN.1, and Sequence and Sequence Of which are composed types; an objectComposedSyntax using display strings for abstract syntaxes; and objectStatus describing status kinds of
- 20 MIB objects for agent and mapped to Mandatory, Optional and Obsolete, etc. by using integers as abstract; and objectAccess describing the kind of access of MIB objects for agent and mapped to Read, Read/Write, Write, Access-Deny by using integers as abstract syntaxes.
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4. The structure of Claim 1, wherein the trapInfoTable comprises: trapInfoEntry, which includes a trapInfoIndex distinguishing instances; a trapEnterprise mapped to enterprise values of track-type objects in a MIB for agent and mapped to a NULL value if a notification type; and a trapVariable mapped to variable values of trap type objects in a MIB for agent and mapping target values if a
- 30 notification type.
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5. The structure of Claim 1, wherein the syntaxIntegerTable comprises: a syntaxIntegerEntry, which includes a syntaxIntegerInfoIndex distinguishing instances of tables in a MIB for agent; a syntaxIntegerValue mapped to a sub-type of Integer of a MIB for agent; and a syntaxIntegerValueString one-to-one mapping strings to expression of a sub-type of syntax Integer of a MIB for agent.

6. The structure of Claim 1, wherein the sequenceInfoTable comprises: a sequenceInfoEntry, which includes a sequenceIndex distinguishing instances; a sequenceIndexValue mapped to table indexes of a MIB for agent and whose values are equal to a value indicating table indexes of a MIB for agent among the baseInfoIndex; and a sequenceEntryInfo mapped to entry instances of a MIB for agent and whose values are equal to values indicating entry instances of a MIB for agent among the baseInfoIndex.

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